

## **Parents' Guide for First Grade Mathematics**

By the end of grade one, students understand and use the concept of ones and tens in the base-ten number system. Students understand the meaning of addition and subtraction and add and subtract small numbers with ease. They measure with simple units and extend their understanding of geometric figures in their environment. They represent, describe, and interpret data and analyze and solve simple problems.

The following are specific skills students need to acquire by the end of grade one:

### **Number Sense and Operations**

- Count, read, and write whole numbers up to 100
- Sort and represent whole numbers up to 100 in groups of tens and ones using objects
- Write a numeral to 99 in expanded form (e.g., 39 is 3 tens and 9 ones or  $30 + 9$ )
- Use the vocabulary “greater than,” “less than,” and “equal to” when comparing sets of objects or numbers
- Estimate the quantitative difference between two sets
- Identify one more, one less, 10 more, and 10 less than a given number
- Identify numbers missing from a counting sequence
- Explore part-whole relationships using the number line
- Model, describe, and illustrate the meaning of addition and subtraction, and use the operations to solve problems
- Compute basic addition facts (up to  $10 + 10$ ) and the related subtraction facts using strategies (e.g.,  $6 + 7 = (6 + 4) + 3 = 10 + 3 = 13$ )
- Find the sum of three one-digit numbers

### **Patterns**

- Recognize, sort, describe, label, and represent patterns using more than one attribute
- Use patterns to establish skip counting by twos, fives, and tens
- Recognize and represent mathematical relationships using symbols ( $=$ ,  $+$ ,  $-$ )
- Write and solve problems with addition and subtraction using symbols (e.g.,  $3 + 4 = 7$ )

### **Geometry, Measurement, and Data Analysis**

- Name, create, and sort geometric plane figures
- Identify geometric plane and solid figures in the students' environment
- Recognize that combining simple geometric shapes can create more complex geometric shapes
- Identify the appropriate tools for measuring length, weight, volume, temperature, and time
- Measure the length of an object using nonstandard units and count the units using groups of tens and ones

- Identify the value of a penny, nickel, dime, quarter, and dollar, and determine the value of a set of the same coins that total 25¢ or less (e.g., a set of 5 nickels equals 25¢)
- Tell time to the hour and half-hour
- Name the months of the year and seasons in order, and use a calendar to determine the day of the week and date
- Collect, represent, and interpret data using tables, tally marks, pictographs, and bar graphs